

1.1 APPLYING/REMOVING THE THERMOPLAST

1.1.1 PREPARATIONS FOR APPLICATION OF THE THERMOPLAST



N.B.: Always keep the machine surroundings clean and dry. Glue and paste residues may cause the floor to become slippery.

Guide rollers

Requisites:

- Teflon spray
- Degreasing agent.

The guide rollers that come into contact with the printing side of the blanket must be coated with teflon. Unlike non-teflonized rollers, teflonized rollers have no coating on the side surface. Damages of the teflon coating must be touched up with teflon spray, after the rollers have first been cleaned and degreased. During repair work, the printing blanket must be protected with cardboard. Take care that no teflon spray gets onto the printing blanket. Allow the teflon to dry for about 3 minutes.

Pressure rollers

Raise the cloth pressure roller and set the air pressure to 0 using the appropriate reducing valve. During application of the thermoplast the pressure roller must not get into contact with the printing blanket.

Glueing device

Move the glueing device from below the machine.

Blanket washer

The pre-scraper, brush washer and dry scraper should be removed from underneath the machine.

Cleaning the printing blanket

Requisites:

- Soapy water
- Methylated spirit
- Grinding paste or grinding powder.

If the printing blanket is old (used for more than six months), steps a and b suffice.

If the printing blanket is rather new (used in production for less than six months, based on one 8-hour shift each day), be sure to take steps a, b and c.

- a. Wash the blanket with lukewarm soapy water (max. 50°C).
- b. Then wash the blanket with methylated spirit (denatured alcohol C_2H_5OH) for 30 min. It may prove useful to hang a piece of cloth over a supporting beam and to moisten it constantly with spirit.

NOTE Do not use white spirit.

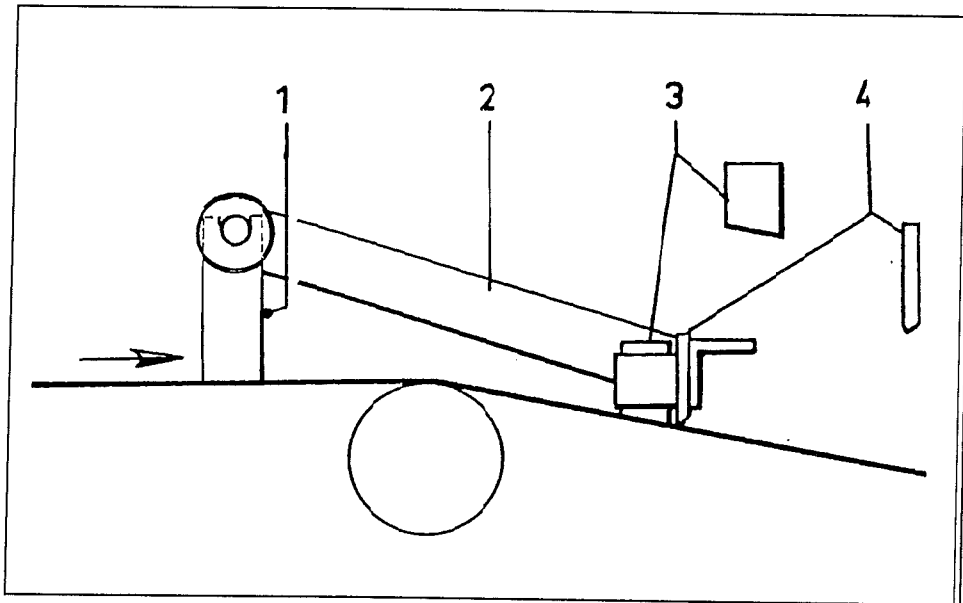
- c. Polish the blanket using super fine-grained grinding paste or powder.

Trial operation

Requisites:

- Supporting frame with application knife;
- Stork Thermoplast stripper SCR42;

- Minimally 2 persons.



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| 1. Suspension support | 3. Limiter baffles |
| 2. Supporting frame | 4. Teflon squeegee |

Figure 6.27

Ref.nr. 600548000

- 1) If applicable: first remove the old layer of thermoplast glue according to instruction (see under 1.1.3)
- 2) Check the squeegee for damage and soiling and clean it with Thermoplast Stripper SCR 42 and/or replace it.
- 3) Hang the supporting frame (2) with the squeegee into the two suspension supports (1) on the machine and fit the limiter baffles (3).



Always handle the supporting frame with the squeegee with two persons.

- 4) Check that the teflon squeegee (4) of the thermoplast application knife is clamped straight. Over the entire width there may not be any space between squeegee and the blanket.
- 5) Check that the baffles fit closely to the printing blanket.
- 6) Activate the "Apply thermoplast" function [0.30.05], if this button is available (if this button is not available on the machine, then perform normal manual operation).
- 7) Start the machine with crawl speed.
- 8) Pour Thermoplast Stripper SCR 42 on the running blanket right in front of the squeegee and check visually that the glue film thus obtained is applied uniformly everywhere.

If the film is not OK:

- 9) If the squeegee is not completely smooth, polish the working surface of the squeegee smooth using fine abrasive paper (waterproof). Subsequently, perform the test with Thermoplast Stripper SCR 42 once again as from 2). If necessary, repeat until the film is OK. Only then continue with 10).

If the film is OK:

- 10) Stop the machine. Deactivate "Apply thermoplast" function [0.30.05], if this button is available (if this button is not available on the machine, then perform the normal manual operation).
NOTE Do not let the blanket run dry in view of the formation of lint.
- 11) Subsequently, raise the squeegee from the blanket, clean both the squeegee and blanket and fit the squeegee back again.
- 12) Subsequently, continue to "Apply the Stork Precoat SCR 44"(1.1.2).

1.1.2 APPLICATION OF THE PRECOAT SCR 44 AND THERMOPLAST SCR 43-XS

WARNING

During application and drying of the Stork Thermoplast SCR 43-XS, the blanket must keep running. On no account should the printing blanket be stopped. For safety's sake, do not allow any more people near the machine than absolutely necessary for this procedure.

Requisites:

- 1) 1 litre of methylated spirit;
- 2) 1 kg of precoat per 25 m² of printing blanket;
- 3) 4 kg of thermoplast per 25 m² of printing blanket;
- 4A) Water-soluble thickener with approx. the same viscosity as Thermoplast SCR 43-XS ;
- Or:
- 4B) Plastic foil (over the full width of the blanket, approx. 1 metre long) and tape.

Application of the Stork Precoat SCR 44:

The precoat SCR 44 is a basic layer that serves to improve the adhesion between thermoplast and printing blanket.

- Activate the "Apply thermoplast" function [0.30.05], if this button is available (if this button is not available on the machine, then perform the normal manual operation
- Start the machine with crawl speed.
- Pour the Precoat SCR 44 right before the squeegee on the running blanket.
- Stop the machine when the spirit is all used up and clean the application squeegee with a piece of cloth.
- Put the squeegee back on the blanket and start the machine at a speed of about 2 m/min.
- Pour the precoat before the squeegee on the running blanket.
- Stop pouring the precoat SCR 44 when the desired amount (1 kg/25 m²) has been applied and allow the machine to run until the squeegee reservoir threatens to run dry, but do not empty!

Application of the Stork Thermoplast SCR 43-XS:

- Then pour the Thermoplast SCR 43-XS on the blanket in front of the application squeegee.
- Move the squeegee a little in lateral direction after each blanket revolution so that the limiter baffles do not always run at the same place and so that possible surface irregularities (formation of marks or lines) disappear.
- Make sure there is always enough thermoplast before the squeegee.
- Stop pouring thermoplast when the desired amount (4 kg/25 m²) has been applied, and allow the machine to run until the squeegee threatens to run dry.

Method A:

- Subsequently pour a little water-soluble thickener (no emulsion thickener) on the blanket in front of the squeegee. The squeegee is not allowed to run dry on the printing blanket for long, as this may cause the squeegee to start vibrating with the result that the thermoplast layer might get damaged again.

NOTE	The thickener and the thermoplast should remain clear of each other; they must not mix!
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- Once the thermoplast has been totally used up and only thickener is being applied across the full width, take the squeegee from the machine and clean it with Thermoplast Stripper SCR 42.
- Remove excess thickener (water).

Method B:

- At the very front of the machine, using the tape, fasten plastic foil across the complete blanket width.
(TIP: Fasten the tape at a slight angle, therefore not perpendicular at the running direction of the blanket. This makes it easier to pull loose the tape while the blanket is in operation and prevents the tape from rolling up.)

The following 3 steps a), b) and c) must subsequently be taken **in a single continuous movement**:

- a) Let the plastic foil run through underneath the squeegee and at this moment pull (with at least 2 persons) the plastic foil off at both sides of the squeegee (THE MACHINE STAYS IN OPERATION!).
- b) Throw the plastic over the squeegee, in such a way that it will not cause any soiling on the thermoplast layer or on the blanket.
- c) Remove the squeegee with the foil without provoking soiling on the blanket.
- Clean the squeegee with Thermoplast Stripper SCR 42.

NOTE: The drying time of the thermoplast applied while the blanket is in operation is minimally 6 hours. During this drying period the printing machine may be prepared for operation again.

- Stop the machine. Deactivate the "Apply thermoplast" function [0.30.05], if this button is available (if this button is not available on the machine, then perform the normal manual operation)

1.1.3 REMOVAL OF THE THERMOPLAST SCR 43-XS

Requisites:

- At least 60 litres of Stork Thermoplast Stripper SCR 42, depending on the number of layers of thermoplast glue.
Unlike solvents like acetone and ethyl acetate, the Stork thermoplast stripper does not attack the rubber of the printing blanket.
- Scraping squeegee + collection tray (only with Pegagus, RDDD).
- Raise the cloth pressure roller and reduce the air pressure to 0 using the appropriate valve. During removal of the thermoplast the pressure roller should not touch the printing blanket.
- Check the squeegee of the thermoplast scraping unit for damage and soiling and clean or replace it, if necessary.
- Unlock the blanket washer and move it from below the machine.



Due to the weight of the blanket washer, it must be removed from below the machine by two people. Stand next to the blanket washer while removing it from below the machine. Stay out of the open blanket washer area while the printing blanket is running.

- Remove the pre-scraper and pre-washer.
- Where the pre-scraper had been situated, mount the thermoplast scraping unit and lock it again with the blanket washer locking device.

Note: Do not loosen the bolts for height adjustment.



Always handle the thermoplast scraping unit with two persons. Wear protective clothes while removing the thermoplast layer.

- Roll the glue carrier from under the machine.
- Move the sheeting on the drive side of the machine so as to prevent volatile solvents from accumulating underneath the printing machine.
- Attach (glue) a piece of cloth to the screen beam on the first printing position so that the printing blanket is fully covered in width and for a length of about 1 m.
- Activate the "Remove thermoplast" function [0.30.07], if this button is available (if this button is not available on the machine, then perform the normal manual operation).
- Start the machine with fast print, and set the machine speed to approx. 4m/min.
- Carefully pour the thermoplast stripper SCR 42 over the cloth.
- Allow the printing blanket to run until the soaked thermoplast has been completely scraped off the blanket. If the scraping unit is missing (older machine types), remove the soaked thermoplast from the blanket by hand.
- Once the printing blanket is perfectly clean, stop the machine. Deactivate the "Remove thermoplast" function [0.30.07], if this button is available (if this button is not available on the machine, then perform the normal manual operation).
- Return the brush washer and lock it its initial positions under the machine.



Due to its weight, the blanket washer must be moved below the machine by two people. The platforms must be re-installed afterwards.

- Prepare the machine for production or prepare it for the application of a new layer of thermoplast.

Application of PVA glue on top of Stork Thermoplast SCR 43-XS

If desired, it is possible to apply a water-soluble PVA layer of glue on top of the thermoplast layer. However, in this case it is essential that the PVA layer of glue is applied across the full thermoplast width in order to avoid problems such as soiling of the thermoplast layer etc.

1.1.4. QUESTIONS/PROBLEMS:

Should you have any questions after reading this manual or should you have problems when using Stork Thermoplast SCR 43-XS, Stork Thermoplast Stripper SCR 42 or Stork Precoat SCR 44, you may contact Stork.